

Claims

What is claimed is:

1. A method of connecting at least one electrical contact to at least one conductive circuit comprising the steps of:

inserting at least one conductive circuit into a circuit alignment window in an electrical connector having a plurality of tapered registration pins, tapered alignment ribs and conductor alignment grooves built into at least one activation cam housed rotatably between a cover and a base;

using said tapered registration pins, and said conductor alignment grooves to align said at least one conductive circuit within a circuit receptacle slot in said at least one activation cam;

rotating said at least one activation cam using an activation tool inserted into a cam activation socket in said at least one activation cam, thereby

pulling said at least one conductive circuit into said electrical connector wherein it is wrapped around said at least one activation cam and brought into contact with at least one deflectable contact having a tapered, pointed contact tip forming an insulation;

using said plurality of tapered alignment ribs to align said at least one activation cam with said at least one deflectable contact;

using said insulation plane of each said deflectable contact to pierce and peel back the dielectric insulation of said at least one conductive circuit to expose conductors of said at least one conductive circuit; and

thereby creating a surface finish to surface finish, gas-tight, partially sealed electrical connection, in said electrical connector between said tapered insulation plane of said at least one deflectable spring contact and said conductors of said at least one conductive circuit.

2. The method of claim 1 wherein said partial seal is made permanent by heating said at least one deflectable contact to a temperature that causes said dielectric to flow and thereby seal

the interface between said at least one deflectable contact and said conductors of said at least one conductive circuit.

3. The method according to claim 1 comprising forming an apex of said at least one activation cam at an angle such that a tip of said tapered insulation plane of said at least one deflectable contact pierces and peels back said dielectric insulation of said at least one conductive circuit in a manner to expose, and mate individually with, one by one, the conductors comprising said at least one conductive circuit, thus allowing a single deflectable contact to mate with an individual conductor of said at least one conductive circuit.

4. The method according to claim 1 comprising using the wrapping action of said at least one activation cam to secure said at least one conductive circuit within said electrical connector to support said at least one conductive circuit and eliminate strain on said conductors of said at least one conductive circuit, when in contact with said tip of said tapered insulation plane of said at least one spring contact.

5. The electrical connector according to claim 1 wherein said means for attaching said activation portion and said contact support portion together comprises at least one module latching hole formed in said support portion, into which snap flexible arms formed on said activation portion.

6. A method of connecting at least one deflectable electrical contact to at least one conductive circuit, comprising the steps of:

inserting at least one conductive circuit into an alignment window in a contact support portion comprising said at least one alignment window, a plurality of registration pin receiving holes, and at least one deflectable contact wherein said deflectable contact comprises a tapered insulation plane;

attaching an activation portion comprising a plurality of registration pins and a deflection ridge;

using the activation portion to align said conductive circuit in said connector;

engaging said activation portion and said support portion together; and

deflecting said at least one contact by passing said at least one circuit over said deflection ridge such that a tapered insulation plane on said at least one deflectable contact pierces and peels off a top layer of dielectric and adhesive from said at least one conductive circuit, thereby exposing individual conductors of said at least one conductive circuit, to connect to said at least one deflectable contact with a conductive portion of said at least one conductive circuit to form a gas-tight, electrical connection.

7. A method of connecting at least one electrical deflectable contact to at least one conductive circuit comprising the steps of:

aligning the conductive circuit with the deflectable contact;

activating the contact to engage conductors of the conductive circuit, to form a reliable electrical connection between individual conductors of the conductive circuit and individual contacts of the deflectable contact;

piercing and peeling the upper layer of dielectric insulation and adhesive of the conductive circuit with the contact, where the contact is tapered to a pointed insulation plane thereby scraping off a thin layer of conductive material from the conductive circuit; and

interfacing the conductive portion of the deflectable contact to form a gas tight partial seal with the now exposed conductors of the conductive circuit.